

U.S. Patent Application Serial No. **10/519,672**
Amendment filed March 15, 2007
Reply to OA dated November 20, 2006

REMARKS

Applicants have amended claim 1 by the incorporation of the subject matter of Claim 2 therein, and Claim 2 has been canceled.

As now provided, Claim 1, as amended, is to a pipe coupling having a tubular body for a pipe to be inserted in a rear end thereof, a front and a back ring to be fitted around the pipe projecting from the rear end of the body, and a cap nut for tightening up the front and back rings to fix the pipe to the body. The back ring is made of an alloy having, in % by weight, 0.001 to 0.01% of C, up to 5% OF Si, up to 2% of Mn, up to 0.03% of P, up to 100 ppm of S, up to 50 ppm of O, 18 to 25% of Cr, 15 to 25% of Ni, 4.5 to 7.0% of Mo, 0.5 to 3.0% of Cu, 0.1 to 0.3% of N, and the balance substantially Fe and other inevitable impurities, . The back ring is not subjected to a heat treatment, such as carburization or nitriding, and the pipe coupling increases in the order of the pipe < the front ring < the back ring in Vickers hardness and wherein the pipe is 150 to 200 in Vickers hardness, the front ring is 250 to 300 in Vickers hardness, and the back ring made of said alloy is 350 to 500 in Vickers hardness. Such a pipe coupling is not taught or suggested in the prior art.

In the Office Action, Claims 1 and 2 were rejected as obvious under 35 U.S.C. §103(a) in view of Japanese Patent 8-014449.

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The Examiner's attention is drawn to three related pending applications and the prior art cited therein. These applications are U.S. Serial No. 10/519,674, U.S. Serial No. 10/519,673 and U.S. Serial No. 10/519,675. The prior art cited in these related cases is presented in an Information Disclosure Statement filed on even date with this amendment.

In the Office Action, it is stated that Japanese Patent 8-014449 discloses a pipe coupling having a tubular body to be inserted in through a rear end of a pipe, a front and a back ring to be fitted around the pipe projecting from the rear end of the body, and a cap nut for tightening up the front and back rings to fix the pipe to the body, where the back ring is made of an alloy that is intended to provide corrosion protection and that is harder than the first ring and pipe to provide a compact and corrosion resistant pipe joint. Japanese Patent 8-014449 does not disclose that the back ring is made out of the exact composition recited by the Applicant. The Ueda et al reference (U.S. 4,833,544), submitted with the Information Disclosure Statement filed herewith teaches such an alloy as that of the present claims. It is alleged, however, that it would be obvious to use such an alloy having a Vicker's hardness value as prescribed. Reconsideration and renewal of the rejection is respectfully requested in view of the amendments to Claim 1 and the following remarks.

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As now amended, the claim is directed to a back ring that is not subjected to a heat treatment, such as carburization or nitriding as with prior art back rings, as discussed on page 1, lines 14-17 of the present specification. Also, the pipe coupling increases in Vickers hardness in specific numeral ranges in the order of the pipe < the front ring < the back ring. The combination of features claimed in the pipe coupling of amended Claim 1 are not taught or suggested in the prior art.

In view of the present amendment to Claim 1, and the above remarks, Claim 1 is believed to be patentable and early action towards allowance thereof is respectfully requested.

In view of the aforementioned amendments and accompanying remarks, the claim, as amended, is believed to be patentable and in condition for allowance, which action, at an early date, is requested.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the applicants undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

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In the event that this paper is not timely filed, the applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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PATENT TRADEMARK OFFICE

Enclosures: Petition for Extension of Time
Information Disclosure Statement

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